



# A NEW ERA OF ONLINE LEARNING IN INDIA: CASE OF MASSIVE OPEN ONLINE COURSES

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## ABSTRACT

Massive Open Online Courses (MOOCs) have emerged as one of the most potential tools in reaching out to large number of participants who may be students or may be interested in honing their existence skills while in work force. The audience for MOOCs are varied and there is no limitation to the number of people who can get engaged with it. MOOC emerged with a promise to reach to a global domain of learners, and promulgate knowledge in an efficient digital platform, besides intertwining a massive network of students, teachers, scholars, or basically anyone who may be interested in learning. The courses offered through MOOC are diverse and wide-ranging. In India, emergence of MOOCs has marked a new era in E-learning or online learning. India being a promising abode of education offers a prospective area to MOOCs for large scale implementation. However, there are several factors and constraints like lack of efficient digital infrastructure that hinder the process of implementation. The paper takes the case of TESS-India MOOC in Hindi and attempts to throw light on the emerging trends in online learning with respect to MOOC. The paper also tries to put together the challenges and learnings in this comparatively new way of learning through the example of TESS-India MOOC.

**KEYWORDS:** Massive Open Online Courses (MOOCs), e-learning, online learning, Open Educational Resources (OERs), teacher education, MOOC in India.

## A new era of online learning in India: Case of MOOCs

### Background

Massive Open Online Courses (MOOCs) emerged in the field of education in 2008, as a result of open education resources (OER) movement. The year 2012 became the 'Year of the MOOC' as the interest of educationists from around the world led to evolution in MOOC from sole reliance on open web resources to inclusion of learning management systems, video lectures and discussion forums. The year saw emergence of some of the popular platforms for running MOOCs, like Coursera, EdX, Udacity, Khan academy and so on. The world was paying attention to this new way of learning, free of cost. MOOC represented a new way of approaching learning that had the potential of attracting millions of students across the world, and which was possibly modifying the way the traditional universities perceived online learning.

### MOOCs in India

Educational policies in India shifted focus on the use "educational technology" in learning much early with National Policy on Education 1986, 1992. Soon "ET" was replaced by the term "ICT", thus widening the scope of technology in education. The National Policy on ICT in Education expressly recommended use of open educational resources and launch of free and open courses. National platforms like NPTEL and NROER not only became repositories of open educational resources, but also platforms for offering online courses that were free of cost. The growing relevance of OERs and online courses piqued interest of public as well as private institutions.

HarvardX and MITx conducted a research study in 2014, according to which 10.5 million of the total enrolled students in Coursera were that of India origin. This made India students the second largest community of online learners, after United States of America. Going by this data, India has a large pool of learners, who would be future users of online learning platforms.

### Case of TESS-India MOOC in Hindi

Teacher Education through School based Support (TESS) India, led by The Open University, UK and Save The Children India, is a teacher professional development programme which focuses on enhancement of the classroom practice of primary and secondary school teachers through the use of freely available, adaptable OERs.

As a part of teacher professional development, TESS-India conducted a six-week MOOC on 'Enhancing Teacher Education through OER - TESS-India' using EdX platform. The course saw three iterations in India and globally; the first two times in English and the third time in Hindi. The six-week course explored how to use an OER in the design and delivery of teacher education programmes to help bring in transformation in classroom teaching and learning. The target audience for the course was teacher educators and teachers.

### Rationale behind conducting MOOC in Hindi

Though TESS-India MOOC in English was hugely successful in its first and second iteration in May-July 2015 and November 2015 – January 2016 respectively, in India and globally; a great need was expressed in the course surveys by the course participants from India to have the activities of the course in Hindi for better engagement and expression. A vast number of them expressed inability to

engage with the course material as well as the online platform owing to the language barrier. A high demand from several corners of Indian teacher education was seen and thus, came the idea for a Hindi MOOC.

TESS-India Hindi MOOC is a direct translation of its English version. Owing to the success of TI MOOC in English, no need was felt to make any changes in its design and approach. The purpose was to make it available for the Hindi-speaking audience for better engagement and immersion with the content of the course. Hence, TESS-India team along with academicians from TESS-India States (where TI is operational) came together to translate the course content meaningfully.

### Process involved in creation of the Hindi MOOC

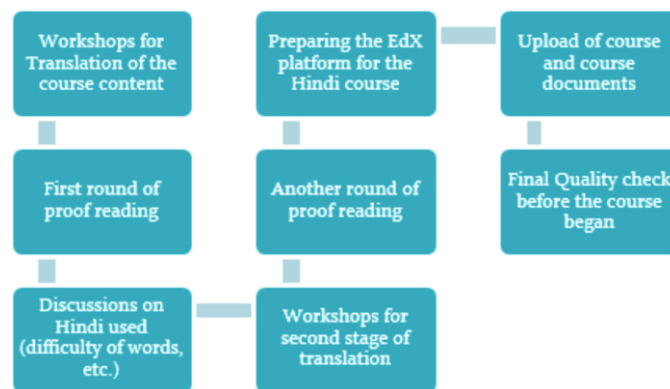


Fig 1: Process in creation of Hindi MOOC by TESS-India

### The course aimed at:

- Recognising and modelling active, learner-centred teaching approaches
- Using OERs to plan and enact activities that promote/ teacher professional learning and pedagogic change
- Giving and responding to feedback aimed at enabling practice focussed learning and pedagogic change
- Selecting and using OER to meet professional learning needs.

**Course duration:** November 2016 to January 2017

**No. of Participants:** 33909

Special feature of TI MOOC – Blended Learning Model: The course was supported by face-to-face sessions (contact classes) in India. These Contact Classes ran parallel with the online course, providing a richer and more supportive experience for teacher educators and teachers both on and offline. The Contact Classes took place in four states of India – Madhya Pradesh (M.P.), Uttar Pradesh

(U.P.), Bihar and Odisha, where the local government institutions like DIETs and BRCs functioned as MOOC contact class centers. The government official who had earlier participated in TESS-India MOOC in English became the facilitators for its Hindi iteration. These facilitators built their teams and conducting the classes with the participants. The TESS-India teams in the four States collaborated and supported government institutions during the course.

#### Model of implementation in four States

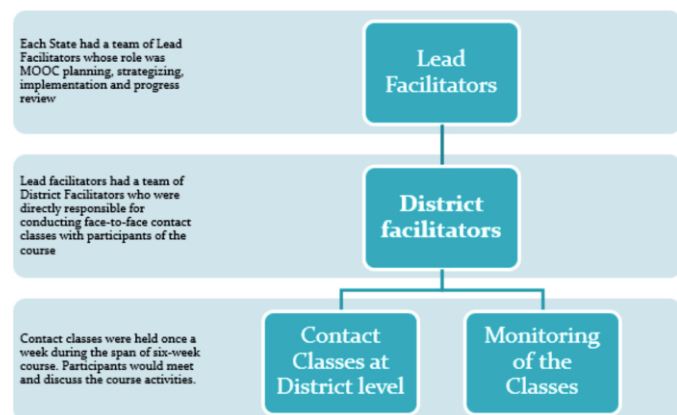


Fig 2: Model of Implementation in U.P., M.P., Bihar and Odisha

#### Participant Profile

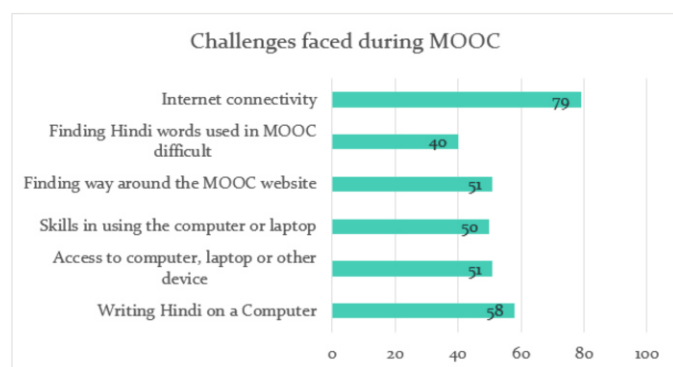
The participants of the course were distributed across the globe, however, majority (86%) were based in India. Out of this, 56% were from U.P., 17% from Odisha, 15% from Bihar and 9% were from M.P. Remaining 3% were from various other Indian States. More than half (60%) of these participants were based in rural areas. Over half (59%) of the MOOC participants were male, and a striking majority (93%) of all participants were taking MOOC for the first time.

The participants were also diverse in terms of age, ranging from 17 to 65 years and above; however, most belong to age group of 25-34 years. Over 50% of participants were teachers working in Elementary schools of India.

#### Challenges

Surveys were conducted at the beginning and the end of the course, to understand the learnings and challenges faced by the India participants while doing the MOOC. The surveys were only for the Indian participants and focused on issues related to Indian context.

Out of 33909 participants, around 29000 were based in India. Out of this number, 79% expressed that the biggest challenge in doing the MOOC was availability of internet connectivity. Among other challenges was missed deadlines of assignments leading to dropouts, monitoring of the classes and lack of required IT skills among participants. The contact classes and the collaborative effort of the facilitators resolved many of such issues during the span of the course. However, owing to the large number of participants, it was a daunting task. The graph below depicts the challenges faced by the participants during the course.



Graph 1: Challenges faced by participants during Hindi MOOC

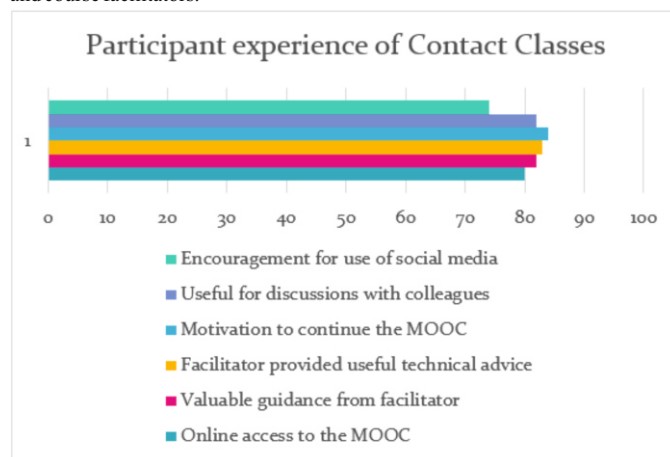
#### Learnings:

Collaborative effort with the State governments: The DIETs of the four Indian states functioned as centres for the blended model of learning. Ownership by the State government officials resulted in better involvement and engagement of the participants.

#### Contact Classes:

Many of the participants were doing an online course for the first time. The Contact Classes were a meeting point for all participants. It was a safe place where the participants could raise queries, discuss activities and seek support from peers

and course facilitators.



Graph 2: Experience of the participants during Contact Classes

#### Use of Social media:

WhatsApp played a key role for collaboration between facilitators and participants in all States. Continuous updates were shared via the groups created at State and District level. There was a national MOOC group (including all States), a group for MOOC Lead facilitators, one for MOOC course team, separate groups in UP, MP, Bihar, Odisha and finally district level groups in each of these States.

Table 1: Table showing use of different social media by participants while taking MOOC

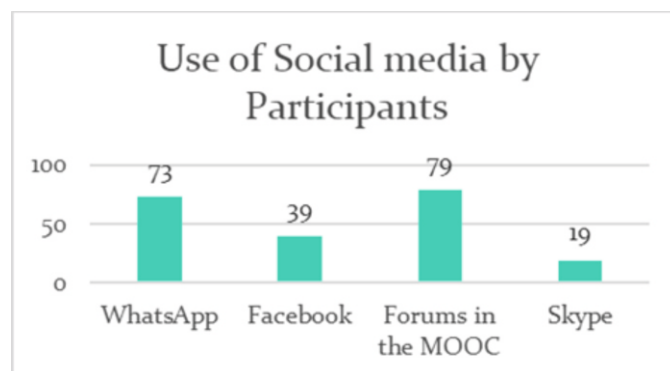


Photo 1: Participants in DIET Mathura, U.P. during a Contact Class, using smartphones for doing the course (under CC by SA)

#### Use of smartphones:

Out of 29000 participants from India, 67% made use of smartphones for doing the course.

#### Course Completion Rate:

A 2013 study by Pennsylvania State University examined the behavior of one million enrollees in 16 Coursera offerings, and found that completion rates averaged just 4%. Rates were higher for courses with fewer assignments, but even then, only reached about 6%. In case of TESS-India MOOC in Hindi, more than half (52%) participants completed the course and received a certificate. This is a phe-

nominal figure for a MOOC. The exceptional completion rate can be attributed to the unique model adopted for conducting the MOOC. It was the first of its kind for India and has led to many new findings and scope for MOOC.

#### Future of MOOCs in India:

The University Grants Commission (UGC) along with the HRD (Human Resource Development) Ministry has launched a program on MOOC in India for higher secondary, bachelor's and master's degrees. For this purpose, a new portal called 'Study Webs of Active-Learning for Young Aspiring Minds' or SWAYAM, has been launched in 2017 with at least 350 online courses that the participants can take for free. To provide further information on SWAYAM and MOOCs in general, Professor A. K. Bakshi, Chairman of the Centre for E-Learning, said, "These online courses have been developed by a team of senior academicians and are expected to enhance the gross enrolment ratio in higher education without compromising with the quality. These courses will also help in bridging the digital divide in the country."

Though MOOCs in India have arrived with a gleam of hope for future participation in e-learning for the country, there is still a mass of untapped resources that can support in accelerating the utility of MOOC in a country with multicultural requirements of the learners. MOOCs have shown promise in reaching out to the masses, however, there are a set of challenges that need to be overcome to include MOOC in distance/online learning in formal and non-formal education.

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